

**SAS Superstructure**

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 11:17 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 475 Const Calendar Day: 239 Date: 29-Jan-2013 Tuesday

Inspector Name: Wright, Doug Title: Transportation Engineer

Inspection Type: Continuous

Shift Hours: 06:50 AM 07:15 PM Break: 00:30 Over Time: 03:00

Federal ID:

Location:

Reviewer: Schmitt, Alex

Approved Date:

Status: Submit

**04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge****Weather**

Temperature	7 AM	12 PM	4 PM
Precipitation			Condition

Working Day ☒ If no, explain:**Diary:**

Dispute

CCO #291 replace CB bolts

Overview of Cable work today:

The following work was ongoing today on the Cable:

- Cable wrapping
- Painting of suspender ropes & main Cable
- CCO-291 work for replacing cable band (CB) bolts

Today I was inspecting Tony Costa's crew on CCO-291 work of replacing CB bolts. See the diaries of L. Woo, S. Soheilifard, & A. Iranmenesh for additional details of Cable field work.

- I arrived at the pier-7 office at 06:50, & I arrived on the bridge at 07:10.

- Tony Costa, Casey Lux, Ryan Evancheck, Robert Larue, & Augie Solis each worked 10 hours on CCO-291 today. Robert Larue worked 8 hours on CCO-291 today. Favco operator Nick Shafer worked 1 hour on CCO-291 today.

CCO-291 work for replacing CB bolts at PP 40S:

Work on replacing the CB bolts at PP 40S was completed today. The following were the steps done to complete the work.

- Note: The new bolt-tight jacks & pump were being used to tension the new bolts. They were using pump #12928327 / 2
- Old CB bolt numbers 2, 4, 6, & 8 were de-tensioned & removed. The gap between CB halves opened to about 7mm when the bolts were de-tensioned.
- Note: there was some rust noted on the CB bolts near the head of the bolts. See attached photo.
- New CB bolt numbers 2, 4, 6, & 8 were installed.
- 6mm thick shims were installed in the gap between the CB halves. See attached photo.
- The new CB bolt numbers 2, 4, 6, & 8 were tensioned to 24,000 psi (about 1.1 MN).
- Then one-by-one, each old bolt was removed & the corresponding new bolt was installed & tensioned to 24,000 psi (about 1.1 MN)
- During the morning break, extensometer measurements were taken by A. Schmitt, M. Bruce, & J. Lyons. I calculated the new elongations & load on each of the new bolts. The minimum load on the new bolts was about 800kN, & the average was about 900kN.
- New CB bolt numbers 2, 4, 6, & 8 were de-tensioned. The gap between CB halves opened up slightly more to about 7.5mm when the bolts were de-tensioned.
- 22 of the new bolts (all except 2, 4, 6, & 8) were tensioned simultaneously to 29,000 psi (about 1.4 MN).



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Job Name: 04-0120F4 **Inspector Name** Wright, Doug **Diary #:** 475 **Date:** 29-Jan-2013 **Tuesday**

- The shims previously installed near bolt numbers 2, 4, & 6 were removed & the butyl rubber was installed in the CB gap.
- New CB bolt number 2, 4, 6, & 8 were tensioned at 29,000 psi (about 1.4 MN).
- All of the new bolts were tensioned simultaneously to 29,000 psi (about 1.4 MN). The pressure was cycled up 3 times to try to minimize seating losses. See attached photo.
- Extensometer measurements were jointed taken by both ABF & Caltrans. B. Jones & A. Reeve did the measuring for ABF, & M. Bruce, J. Lyons, & L. Woo did the measuring for Caltrans. I calculated the new elongations & load on each of the new bolts. The minimum load on the new bolts was about 1.05 MN, & the average was about 1.2 MN. 3 of the bolts (numbers 1, 3, & 5) showed high loads. They were each around 1.5 MN. This information was given to Roman Granados, Warren Collins, & Tai-Lin Liu for analysis.

While the extensometer measurements were being taken at PP 40S, Tony's crew moved to PP 40N to start to replace these bolts.

CCO-291 work for replacing CB bolts at PP 40N:

These bolts were being replaced 3 at a time. 3 bolts were de-tensioned & removed, & then new bolts were installed & tensioned to 24,000 psi (about 1.1 MN).

- Note: there was some difficulty removing the old bolts. They showed some signs of minor bending which may have been the reason that removal was difficult.
- Bolts 2, 4, 6, 8, 10, & 12 were done today.

- At 17:20, I left the bridge.
- From 17:30 until 18:15, I spoke with Warren Collins to give him an update on the field work for the CB bolt replacement.
- From 18:15 until 18:45, I checked my PP 40S elongation & load calculations against those done by Tai-Lin Liu. They agreed with each other.
- From 18:45 until 19:15, I wrote my diary for the day & checked email.

04-0120F4 Bid Item: 067 C-SUS-SCC.067 Install Suspender Clamps, Separators, Collars

AMERICAN BRIDGE/FLUOR, A JV

Labor

Trade	Class	Name	RT Hrs	OT Hrs	DT Hrs	Total	Remarks	Dispute
Contractor: AMERICAN BRIDGE/FLUOR, A JV								
Ironworker	JNM	RENE ESQUIVEL	2.00	0.00	0.00	2.00	2 hours on CCO-291 for removing MEP at PP 34S	<input type="checkbox"/>
Ironworker	APP	ETHAN KENT	2.00	0.00	0.00	2.00	2 hours on CCO-291 for removing MEP at PP 34S	<input type="checkbox"/>
Operator	OTH	NICOLAUS SHAFER	8.00	2.00	0.00	10.00	1 hour on CCO-291 Favco operator	<input type="checkbox"/>
Ironworker	JNM	RYAN EVANCHIK	8.00	2.00	0.00	10.00	10 hours on CCO-291 replacing CB bolts	<input type="checkbox"/>
Ironworker	JNM	Robert Larue	8.00	2.00	0.00	10.00	8 hours on CCO-291 replacing CB bolts	<input type="checkbox"/>
Ironworker	APP	AUGIE SOLIS	8.00	2.00	0.00	10.00	10 hours on CCO-291 replacing CB bolts	<input type="checkbox"/>
Ironworker	JNM	CASEY LUX	8.00	2.00	0.00	10.00	10 hours on CCO-291 replacing CB bolts	<input type="checkbox"/>
Ironworker	FOR	ANTHONY COSTA	8.00	2.00	0.00	10.00	10 hours on CCO-291 replacing CB bolts	<input type="checkbox"/>

Attachment



ddrRptbyBidItem

Daily Diary Report by Bid Item

Job Name: 04-0120F4

Inspector Name Wright, Doug

Diary #: 475

Date: 29-Jan-2013

Tuesday



All of the new bolts manifolded together for final tensioning



Some rust near the heads of the old CB bolts



6mm thick shims installed in gap between CB halves to control the amount of gap